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Inventors

: Kyoko Yokoi

: Koji Watanabe

Confirmation No.: 1423

: Takafumi Hashimoto

Title : ARTIFICIAL SUEDE-TYPE

: LEATHER AND PROCESS FOR

: PRODUCING THE SAME

## **DECLARATION OF TOMOYUKI HORIGUCHI**

Mail Stop AF Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Sir-

I, Tomoyuki Horiguchi, declare under penalty of perjury under the laws of the United States of America as follows:

I reside at 8-20-301, Fujimidai, Otsu-shi, Shiga 520-0846, Japan. I received a Master of Science degree from Osaka University in 1995. I entered employment with Toray Industries, Inc., in 1995 and have been engaged since then mainly in research on textiles and artificial leather at the Fibers & Textiles Research Laboratories of Toray Industries, Inc. (Toray).

I am familiar with artificial leathers and methods of producing such leathers. I am also familiar with the contents of the above-identified patent application and further familiar with the Official Action dated May 17, 2010.

The Table below contains the results of three experiments that were conducted utilizing vellow, red, blue and black pigments. The various concentrations of the pigments are shown in the Table and the results of various tests are also reproduced in the Table. The Table shows in particular discoloration ratios for the three experiments. Those discoloration ratios were 47%, 31% and 39%, respectively. Those discoloration ratios are quite different from the discoloration ratios as recited in Claim 7. They far exceed the claimed discoloration ratio of 20% or less. Thus, I believe that the discoloration ratios that are achieved in the Examples in the above-identified application are quite surprising given the experimental values obtained in this Declaration.

## Experimental Data

	Pigmente added	rations of pigmant s (%)	Property values of artificial leather				Property values of pigments		
			Infre	Light fastn ase (clas	surfac e temper ature (°C)	Specki.	Infrared reflects nce (%)	a C*	Discolorati on ratio after reduction cleaning (%)
No	Yellow (eso	1.1				T			
.1	type)		1	1 .	.]	l .			
	Red (DPP type)	0.7	75	3	95	×	73	2.2	47
	Blue (phthaloc	0.7	1	ı	1	1.		l	
	yanine type)	l		ł		L.			
	Black(peryles	7.0	i	l			l	1	ľ
i .	e type)		1		1	1	i	1	

	Pigmente added	Concent rations of pigment s (%)	Property values of estificial leather				Property values of pigments		
			Infra red refle ctand e (%)	Light fastn ess (clas	Surfac e temper sture (°C)	Specki ng	Infrared reflects nce (%)	Chron	biscolorati es ratio after reduction cleaning (%)
30 .2	Yellow (aso type). Red (DFF type) Blue (phthaloc yamine type) Black (perylen e type)	0.16 0.24 0.2	02	3-4	79	×	<b>91</b>	3.3	31
¥о .3	Yellow (450	0.6 0.35 0.3 3.7	78	3-4	89	×	77	3.2	39

The undersigned declares that all statements made herein of his own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and thus such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: () uly 20, 20/0

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